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Earth Day News

April 22, 2006 was Earth Day! Each year, Montgomery County recognizes the entire month of April as a time to celebrate environmentally sound practices. Beyond a single day or month, we should always be aware of valuable opportunities to take time to change one practice in your shop, or adopt a new and improved best management practice. Switch away from aerosol cans to refillable spray bottles, become a dry auto repair shop, or purchase a microbial parts washer. Conduct a cleanup of the grounds near your shop or restaurant. Why not take a moment now to reduce, reuse and recycle whatever materials you can recycle or cut out.

Environmental Partner Spotlight

Precision Auto in Germantown, under owner Bud Wildman, uses spill-free oil recycling, re-usable shop towels, and refillable non-aerosol spray cans. They use a brake vacuum unit to remove, contain, and prevent the workers from breathing harmful brake dust particles. The unit passes the air through a series of filters, including a high efficiency particulate HEPA filter to capture the brake dust, which can contain asbestos and other harmful fibers. They also use a Viper-jet aqueous steam cleaning parts washer system. The facility uses an approved refrigerant handling unit, with all recovered refrigerants being used on site.

Four-Step Clean Up Kits Available

The four-step cleanup method is recommended for oil or antifreeze spills. This method involves using special hydrophobic mops designated only for petroleum spills – they only absorb oil. These mops can be rung out and re-used for future spills.

The DEP is making available a complete oil spill kit to 10 shops who want them. Simply call 240.777.7700 for your four-step cleanup kit. The kit contains the hydrophobic mop and

rags, and a bucket so you can clean up without using water or spreading the oil around the shop. The four-step method is the best way to contain spills.



Environmental Partners Looks Ahead

DEP focused its initial efforts on auto repair shops. But now we are expanding our outreach to other business sectors such as dry cleaners, auto body shops, and restaurants. The same kinds of helpful hand-on resources will be offered – each tailored specifically to these new sectors. The idea remains the same, to provide small businesses with alternative operational methods and techniques that are simultaneously profitable and greener.

Eliminate Aerosol Cans

What's wrong with aerosol cans? When compared to refillable spray bottles, they are expensive and have greater environmental consequences.

Did you know?

- Ounce for ounce, spray on product sold in aerosol cans is about twice the cost of bulk product. You pay for propellants in every aerosol can (10 to 15 percent by weight).
- Carbon dioxide, propane and butane are commonly used aerosol propellants that are also "greenhouse gases" that contribute to global warming and smog formation.
- Aerosol cans of solvent-based brake cleaners contain volatile organic compounds (VOCs) that contribute to ozone and smog formation and harm worker's health.
- Used aerosol cans that are not empty may be considered hazardous waste. Under the federal Resource Conservation and Recovery Act (RCRA), aerosol cans may only be recycled or disposed of as non-hazardous wastes if they have been emptied through normal use or punctured and drained to remove significant liquids. (Shops are responsible for properly managing any captured wastes recovered from puncturing and draining.)



Effective Alternatives to Aerosol Cans are readily available. Using the alternatives can reduce your product costs, regulatory requirements, and eliminate or reduce your worker's exposure to harmful vapors. Some of the alternatives to aerosol cans include refillable spray bottles and aqueous brake washers. For example, aqueous brake washers may be substituted for cans of solvent-based aerosol brake cleaners.

Refillable Spray Bottles

There are two basic types of refillable spray bottles: metal bottles that spray product using compressed air and plastic bottles that use a hand pump to spray product.

- Metal bottles are filled with product (for example brake cleaner or carburetor cleaner) from a bulk container and are pressurized with air at 80 to 200 pounds per square inch using a compressed-air hose.
- Plastic bottles are also filled from bulk containers but do not require compressed air. Instead, they are operated by pumping a trigger to create a mist or stream of product.

Agency in Action

Rodney Martin, of Montgomery County's Department of Public Works and Transportation (DPWT) recently reported on his Division's progress on product substitution (switching away from aerosol to refillable pump bottles). He talked about preventing, reducing, and managing hazardous substances, pollutants or contaminants in a way that saves money and resources. He estimated a yearly savings in 2004 and 2005 of approximately \$4,500.00 per year by using non aerosol.

He accomplished this savings through:

- source reduction (for example, discontinue the use of solvent sinks, or substitute "pump sprays" for aerosol can products;
- substitution of non-toxic materials (for example using a non-toxic solvent parts washer which saves approximately \$150/month along with reduced operating costs, regulatory burden and reduced liability).

Since these practices are money saving in the long run, his Fleet Management Services has permanently adopted them.

DRYCLEANING INTRODUCTION

The drycleaning process is very similar to the home laundry process, except that clothes are washed in dry cleaning solvent instead of water. Cleaning consists of three functions: cleaning, drying, and finishing. Garments are pre-treated for stains, then machine washed in a solution of a solvent, soaps and detergents. The solvent is extracted by draining, and then spinning the clothes. Finally, the garments are dried through a combination of aeration, heat and tumbling, and then they are pressed. Drycleaning processes garments in a way that avoids saturating fabrics with water. If thoroughly saturated with water, agitated and heated, certain fabrics may shrink or the dye may run.

Perchloroethylene (Perc or PCE) is the most commonly used drycleaning solvent – estimated to be used in about 85 percent of drycleaning shops throughout the USA. It is a clear, non-flammable solvent that has a sweet odor and evaporates quickly. It is an effective cleaning solvent because it removes stains and dirt from all common types of fabrics and rarely causes clothes to shrink or dyes to bleed. Drycleaners throughout the USA use about 37 million pounds of Perc annually. However, there are health and handling problems associated with Perc.

The Problems of Drycleaning

Several hazards are associated with drycleaning processes, including chemical and fire hazards. Exposure to hazardous chemicals commonly used in drycleaning shops can occur through skin absorption, eye contact, or inhalation of the vapors. Conventional drycleaning methods employ either Perc (trichloroethylene or TCE) or petroleum as solvents. Perc is a toxic chemical suspected of causing cancer. Symptoms associated with exposure to Perc include: dizziness; confusion; damage to the liver and kidneys; impaired memory; and eye, nose, and throat irritation. Repeated skin exposure may result in dermatitis. Perc can also contaminate groundwater through leaky sewer lines, spills, leaky tanks, improperly handled wastes, or when illegally disposed of in septic tanks. Because it is a liquid that does not bind well to soil, Perc that makes its way into the ground can enter groundwater.

A small amount of Perc can contaminate a large amount of groundwater and the costs to clean up the contamination sites are considerable. The maximum contaminant level in drinking water is 5 parts per billion (ppb).



Some Drycleaning Alternatives

Because of the environmental and health problems associated with Perc, there has been a substantial increase in regulations addressing these issues. In order to comply with present and future regulations, the drycleaning industry can either develop another generation of machines with better controls, or the industry can develop alternative technologies. Some of the new/alternative processes are: petroleum solvents, aqueous or wet cleaning, carbon dioxide, glycol ether, or silicone. **Factsheets explaining these alternatives in greater depth** are available from DEP by calling 240-777-7700. Soon drycleaners throughout the county will be hearing directly from DEP on these alternatives and other safe practices.



SOLID WASTE MANAGEMENT

Montgomery County residents and businesses generated more than 1.2 million tons of trash in fiscal year 2005. There is no operating landfill in Montgomery County and the trash that is generated must be handled in an environmentally safe manner. In addition, overflowing containers, illegal dumping and littering results in trash ending up in streams and rivers. In March 2006, County Executive Duncan reaffirmed the County's commitment to the Trash Free Potomac Treaty to eliminate trash reaching the Potomac River by 2013. Achieving this ambitious goal will require all County agencies, residents, and business owners to follow all County laws and regulations for proper solid waste disposal, and to reuse, reduce and recycle whenever possible.

County Laws and Regulations

The County finds that undertaking a long term commitment to remove and recycle certain materials from the solid waste stream is a necessary part of the County's integrated solid waste management system of waste reduction, recycling and reuse of solid waste, resource recovery and landfilling. Extensive recycling will:

- decrease the amount of solid waste sent to County disposal facilities;
- aid in the conservation and recovery of valuable resources;
- conserve energy;
- increase the supply of reusable raw materials;
- reduce the cost of planning, constructing, and operating solid waste disposal facilities;
- reduce the environmental impact of waste management.

Montgomery County Code Chapter 48 covers the storage and removal of solid waste for businesses and residents. Montgomery County Executive Regulation 15-04AM requires all single-family residents, multi-family properties and residents and businesses and employees to recycle certain materials. In addition, multi-family properties and businesses are required to report their recycling progress to the County. Montgomery County Executive Regulation 18-04 bans the disposal of recyclable materials as trash at County solid waste acceptance facilities and requires haulers and collectors to notify their customers of situations in which recyclable

materials are mixed in with their solid waste. The following are some highlights of the requirements that apply to businesses.

- All businesses must recycle mixed (or sorted) paper, commingled materials (aluminum cans and foil products, glass bottles and jars, bi-metal cans and narrow-neck plastic bottles) which may also be separated by type, scrap metal, yard trim and Christmas trees.
- Businesses with 100 or more employees and property owners of multi-tenant facilities must file an annual recycling and waste reduction report. Businesses with fewer than 100 employees must file a report upon request from the County. Businesses must educate their employees and customers about their recycling programs.
- If your business sells a product in recyclable packaging and the product is consumed on-site, you must provide a recycling bin for the customers to use. If your staff clears the tables, inform your customers to leave the packaging on the table for collection by your staff. Make sure you train your staff on how to recycle properly.
- Businesses that contract for collection of recyclable materials must use a Montgomery County licensed collector.
- Collectors must collect and deliver materials that have been separated for recycling to a recycling facility.
- An owner or occupant of commercial or industrial property must not let solid waste accumulate on the property or be carried or deposited by the elements on any other public or private property.
- Dumping garbage or solid waste on the land of another, or into another's container(s), or upon any public highway is illegal.

It is important to let your customers know that your business recycles. Please post signage that lets your customers know about your recycling program and efforts. Montgomery County businesses are increasingly aware of, and more willing to embrace solutions to environmental challenges we face today. For more information on recycling and solid waste requirements, call the Department of Public Works and Transportation, Division of Solid Waste Services at 240.777.6400 or visit their website at www.montgomerycountymd.gov/recycling.

For more information:



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